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09/785,778	02/16/2001	Fernando Stroppiana	4758US	3382

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TRASK BRITT  
P.O. BOX 2550  
SALT LAKE CITY, UT 84110

EXAMINER

BAHTA, ABRAHAM

ART UNIT PAPER NUMBER

1775

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/785,778

Applicant(s)

STROPPIANA, FERNANDO

Examiner

Abraham Bahta

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09/30/03.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prevost

(USP 6,338,885) alone or in view of Hass (USP 4,337,283) or Dickinson (USP 5,961,389).

Prevost teaches a synthetic grass surface comprising a backing member with parallel rows of strips or ribbons projecting upwardly from the backing member. A mixture of an infill particulate material comprising sand and cryogenically ground crumb rubber is provided on the backing member supporting the ribbon in a relatively upright position on the backing member. See col. 7, lines 44-48. The reference suggests the rubber particles minimize abrasion and that the sand may be replaced by hard and heavy granulated plastics or the cryogenically ground crumb rubber could be replaced by other resilient materials such as cork, styrene, epdm rubber which is polyolefin-based material, neoprene or other similar materials. See col. 7, lines 44-67.

Although the reference does not specifically mention a homogeneous mass of a particular granular material may be provided, the reference teaches the infill material of a mix of sand and resilient material can vary depending on the end use of the surface and that more rubber is used if the surface requires more resiliency. See col. 8, lines 1-3. Thus, since the reference suggests more

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rubber may be used if the surface requires more resiliency, this would be a motivation to one of ordinary skill in the art to replace the mix of sand and resilient material with a homogenous particulate material depending on the end use of the product. As to the limitation that the homogenous mass of granular material may be chosen from the group consisting of materials comprising polyolefin and materials comprising vinyl-polymer, the reference teaches the resilient material may be styrene, which comprises a vinyl-polymer and epdm rubber which comprises a polyolefin.

In addition, vinyl-polymer materials and polyolefin materials are known to be used as an infill material in a synthetic turf playing surface as evidenced by Haas Jr '283 and Dickinson '389. For example, Haas, Jr at col. 4, lines 29-55 teaches vinyls such as vinyl chloride, vinyl ethers, vinyl acetate etc., may be used as an infill material and Dickinson teaches polyolefin particles derived from recycled or scrap materials may be used as infill material in sport and recreational surface material. See col. 5, lines 42-60. Thus, the Examiner submits polyolefins and vinyl-polymers may be used as infill material in a synthetic turf.

Therefore, since Prevost teaches the ratio of sand to rubber can be varied depending on the end use of the surface; the more resilient surface required, the more rubber employed, one of ordinary skill in the art would be motivated to replace the mix of Prevost with materials comprising polyolefin and materials comprising vinyl-polymer as taught in Hass '283 and Dickinson '389 in order to minimize abrasion.

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Regarding claims 2, the reference teaches the particles can range in size between four mesh and seventy mesh or between fifteen and thirty mesh for sports where abrasion of the players contacting the surface is a factor and between four and thirty mesh where abrasion is not a factor. It would have been obvious to one of ordinary skill in the art to select a thickness based on the final intended use of the structure.

Regarding claims 3, the reference is silent regarding a specific density; however, it is the position of the Examiner that, since the material and the thickness are essentially the same, the density would inherently be so.

Regarding claim 5-6 the reference teaches the thickness of the infill layer can range between one and four inches (which includes 30 mm).

Regarding claim 8 and 9, the reference does not specifically require a recycled polyolefin or a recycled vinyl polymer material; however, it is within the judgment of a skilled artisan to select a recycled polyolefin or recycled vinyl polymer for economic reasons.

Regarding claims 11-12, patentability of a product-by process claims are based on the product itself even though such claims are limited to and defined by the process. Thus, the product is unpatentable if it is the same as or obvious from a product of the prior art even if the prior product was made by a different process. See MPEP 706.03(e). Absent a showing of unexpected results the claims are not seen to provide patentable distinction over the reference.

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***Claim Rejections - 35 USC § 103***

Claims 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prevost '885 alone or in view of Hass (USP 4,337,283) and Dickinson (USP 5,961,389).

Prevost teaches a particulate filling material such as a mixture of sand, and cryogenically ground rubber for use in a synthetic grass surface comprising a backing member with parallel rows of strips or ribbons projecting upwardly from the backing member. The infill particulate material is provided on the backing member supporting the ribbon in a relatively upright position on the backing member. See col. 5, lines 39-45. The reference suggests the rubber particles minimize abrasion and that the sand may be replaced by hard and heavy granulated plastics or the cryogenically ground crumb rubber could be replaced by other resilient materials such as cork, styrene, epdm rubber which is polyolefin based material, neoprene or other similar materials. See col. 7, lines 44-67.

Claim 13 of the present application differs in the fact that it requires a homogenous mass of particulate material wherein the reference teaches a mixture material; however, although the reference does not specifically mention a homogeneous mass of a particular granular material may be provided, the reference teaches the infill material of a mix of sand and resilient material can vary depending on the end use of the surface and that more rubber is used if the surface requires more resiliency. See col. 8, lines 1-3. Thus, since the reference suggests more rubber may be used if the surface requires more resiliency, this would be a motivation to one of ordinary skill in the art to replace the mix of sand and resilient material with a homogenous particulate material depending

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on the end use of the product. As to the limitation that the homogenous mass of granular material may be chosen from the group consisting of materials comprising polyolefin and materials comprising vinyl-polymer, the reference teaches the resilient material may be styrene, which comprises a vinyl-polymer and epdm rubber which comprises a polyolefin.

In addition, vinyl-polymer materials and polyolefin materials are known to be used as an infill material in a synthetic turf playing surface as evidenced by Haas Jr '283 and Dickinson '389. For example, Haas, Jr at col. 4, lines 29-55 teaches vinyls such as vinyl chloride, vinyl ethers, vinyl acetate etc., may be used as an infill material and Dickinson teaches polyolefin particles derived from recycled or scrap materials may be used as infill material in sport and recreational surface material. See col. 5, lines 42-60. Thus, the Examiner submits polyolefins and vinyl-polymers may be used as infill material in a synthetic turf.

Therefore, since Prevost teaches the ratio of sand to rubber can be varied depending on the end use of the surface; the more resilient surface required, the more rubber employed, one of ordinary skill in the art would be motivated to replace the mix of Prevost with materials comprising polyolefin and materials comprising vinyl-polymer as cited in Hass '283 and Dickinson '389 in order to minimize abrasion.

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Regarding claims 14, the reference teaches the particles can range in size between four mesh and seventy mesh or between fifteen and thirty mesh for sports where abrasion of the players contacting the surface is a factor and between four and thirty mesh where abrasion is not a factor. It would have been obvious to one of ordinary skill in the art to select a thickness based on the final intended use of the structure.

Regarding claims 15, the reference is silent regarding a specific density; however, it is the position of the Examiner that, since the material and the thickness are essentially the same, the density would inherently be so.

Regarding claim 17, the reference teaches the thickness of the infill layer can range between one and four inches (which includes 30 mm).

Regarding claim 19 and 21, the reference does not specifically require a recycled polyolefin or recycled vinyl polymer; however, it is within the judgment of a skilled artisan to select a recycled polyolefin or recycled vinyl polymer for economic reasons.

Regarding claims 22 and 23, patentability of a product-by process claims are based on the product itself even though such claims are limited and defined by the process, and thus the product is unpatentable, if it the same as or obvious from a product of a prior art even if the prior product was made by different process. See MPEP 706.03(e). Absent a showing of unexpected results the claims are not seen to provide patentable distinction over the reference.



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**Response to Applicant's Arguments**

The applicant argues there is no teaching or suggestion in the Prevost reference which would lead a workman of ordinary skill in the art to alter the requirement of a "mixture" of infill materials to an infill structure which is homogenous in character. The Examiner contends, as discussed above, although the reference does not specifically mention a homogeneous mass of a particular granular material may be provided, the reference teaches the infill material of a mix of sand and resilient material can vary depending on the end use of the surface and that more rubber is used if the surface requires more resiliency. See col. 8, lines 1-3. Thus, since the reference suggests more rubber may be used if the surface requires more resiliency, this would be a motivation to one of ordinary skill in the art to replace the mix of sand and resilient material with a homogenous particulate material depending on the end use of the product. As to the limitation that the homogenous mass of granular material may be chosen from the group consisting of materials comprising polyolefin and materials comprising vinyl-polymer, the reference teaches the resilient material may be styrene, which comprises a vinyl-polymer and epdm rubber which comprises a polyolefin.

Further, the applicant contends that the allowability of claim 1 and the claims dependent thereon are supported by the Court's indications under the *Edge* decision in that claim 1 provides for an infill formed of a "homogenous" mass of a granular material selected from polyolefin-based material and vinyl-polymer based material where as Prevost contains no teaching which would

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indicate that anything other than a "mixture" infill would be useable as an infill material. The Examiner contends, as discussed above, since Prevost teaches the ratio of sand to rubber can be varied depending on the end use of the surface; the more resilient surface required, the more rubber employed, one of ordinary skill in the art would be motivated to replace the mix of Prevost with materials comprising polyolefin and materials comprising vinyl-polymer as cited in Hass '283 and Dickinson '389 in order to minimize abrasion.

The applicant argues that Prevost does not teach or suggest a homogenous particulate infill material which consists of materials comprising polyolefin or materials comprising vinyl-polymer materials. The Examiner contends that Prevost teaches the infill material may be ground rubber, cork, styrene, epdm rubber, neoprene or similar materials. Further, the Examiner contends that epdm rubber comprises polyolefin material and styrene comprises vinyl-polymer material. See col. 7, lines 44-67.

Further, the applicant contends that since the particulate material disclosed in Prevost has sand which possesses a number of drawbacks, for example, the marked tendency to injure a player or an athlete and becoming compacted making the particulate material hard, the present invention overcomes these drawbacks by omitting the sand and retaining the function. The Examiner contends that since Prevost teaches more rubber may be used if the surface requires more resiliency (see col. 8, lines 1-3), this would be a motivation to one of ordinary skill in the art to replace the mix of sand and resilient material with a homogenous particulate material depending on the end use of the product. Thus, it would have been obvious to one of ordinary skill in the art

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at the time of the invention to exclude or omit or minimize some elements such as sand if the surface requires more resiliency as suggested by the reference. Further, since Prevost suggests ground crumb rubber minimizes abrasion (see col. 7, lines 46-48) and more rubber may be used if the surface requires more resiliency the skilled artisan would be motivated to employ a substantially homogenous mass of resilient material depending on the event that is to be performed on the artificial turf.

In view of Applicant's arguments, the obviousness in view of the decision of *In re Karlson* is withdrawn.


**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CAR 1.136(a).

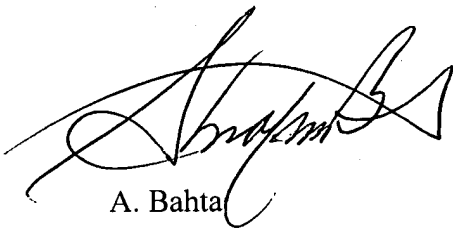
a shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication should be directed to Abraham Bahta at telephone number (703) 308-4412. The Examiner can normally be reached Monday-Friday from 11:30 AM -8:00 PM (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the examiner's supervisor Deborah, Jones, can be reached on (703) 308-3822. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

  
DEBORAH JONES  
SUPERVISOR/PRIMARY EXAMINER

  
A. Bahta

12/06/03